CD EXCEL	CD DELUXE	AUTO

DHRUVA
ELECTRONIC SHRUTHI BOX

Auto

Deluxe

Excel

INSTRUCTION MANUAL

This manual contains information and instructions relating to all the models of the 'Dhruva'. Please refer to the paragraphs relevant to the model you have.

Radel Electronics Pvt. Ltd.

Factory :
74/D, Electronics City, Hosur Road,
Bangalore - 561229, INDIA
Tel.: (91)-80-8520730,
Fax: (91)-80-8521071

Sales & Service:
217, 8F Main Road, Jayanagar 3rd Block,
Bangalore - 560 011. Tel: (91)-80-6647991

567, Anna Salai, Teynampet,
Chennai - 600 018.
Tel:(91) - 44 - 4337485

e-mail: radel@vsnl.com
Website: www.radelindia.com

INTRODUCTION

Congratulations! You are the proud owner of a Radel quality product - the Dhruva electronic sruti box (sur-peti). Radel products are renowned for their excellent tonal quality as well as their reliability. The latest state-of-the-art technology is used in the design as well as manufacture of the instruments. Being the inventor of these products and the pioneer in the field of electronic musical instruments for Indian music, Radel is constantly improving existing models and introducing new models of instruments. The name Radel assures you of excellent quality, and, although you may never need it, dedicated after-sales service.

GENERAL INFORMATION

The Dhruva electronic sruti box (sur-peti) is a sophisticated musical instrument for providing sruti (sur) accompaniment to performers of music. It incorporates the latest state-of-the-art technology, and can be operated on AC Mains (220V / 110V) or on a set of batteries.

The compact Dhruva (CD) models are housed in palm-sized unbreakable ABS plastic cabinets, while the Dhruva Auto is contained in a sleek, slightly larger, unbreakable ABS plastic cabinet.

The Dhruva produces a constant drone after being set to the desired pitch, which can be tuned over a range of more than one octave. The instrument can therefore be used by both men and women vocalists, as well as by all instrumentalists. The Dhruva is available in 3 models: the CD Deluxe, the CD Excel and the Dhruva Automatic.

The CD Deluxe model has facility for independent tuning of three notes with individual coarse and fine-tuning knobs. The three notes can be set to Shadjam (shadj), Panchamam (pancham) and higher shadjam (taar shadj) respectively.

The Automatic model produces 4 notes automatically tuned to Shadjam, Panchamam, higher shadjam and mandaram (kharaj). Only one tuning knob is provided for setting the pitch.

The Excel is very simple to operate and is the ideal choice for beginners. It has an accurate built-in pitch reference with a digital display of pitch. The pitch can be varied from lower octave G (mandara sthayi) to higher octave C (taara sthayi). Memory to store the selected pitch is provided.

The Dhruva Deluxe and Excel operate on four 'C' size batteries of 1.5Volts each, while the Dhruva Automatic operates on six four 'C' size batteries of 1.5Volts each.Automatic switch-over to battery operation is provided in case of AC mains failure. Batteries may be replaced by opening the detachable door at the rear of the instrument.

OPERATING INSTRUCTIONS

CAUTION : Ensure that the voltage selector switch (220V / 110V) is in the correct position (220V in India) before inserting the mains cord into the wall socket. This selector switch can be accessed throught the battery compartment. The switch is factory-set to 220V and a seal is placed over it.

Plug the mains cord into the wall socket if operating on AC Mains.

Remove the mains cord from the socket after use.

DELUXE MODEL

Switch ON the instrument by turning the knob marked VOL clockwise and increase the volume by about a quarter turn. Set the tuning knob of SA to the desired sruti as per the calibrated dial. Press the switch marked PA. The second note will now be heard. Tune the second note to Panchamam (or any other desired note) by using the coarse and fine tuning knobs. If a 'beat' (rhythmic variation of volume of sound) is heard, it indicates that the 2 notes are not tuned correctly. Use the fine tuning knob of PA to eliminate the 'beat'. Next switch ON the higher SA. Tune it to one octave higher than the lower SA, using the same method.

EXCEL MODEL

The instrument has the folllowing controls:

1. Volume control (VOL)
2. Mode selector (MODE)
3. Pitch up or down keys (PITCH ▲ / ▼)
4. Digital pitch display.

OPERATION: Switch ON the instrument by turning the knob marked VOL clockwise and increase the volume by about a quarter turn. The instrument will now provide a pitch stored earlier in memory. SA, PA and higher SA are perfectly and automatically tuned.

Press the ▲ or ▼ keys to alter the pitch by half notes repeatedly till the desired pitch is displayed on the digital display. Half notes (# notes) are indicated by a dot after the pitch in the display.

FINE TUNING: To select a pitch which is slightly higher or lower than the standard pitch settings provided, press the MODE key once. Only the SA note can be heard. Press the ▲ or ▼ keys to alter the pitch as desired in small steps. Press the MODE key 3 times to return to normal mode.

MODE: The operating mode can be changed by pressing the MODE key as follows:

1. Normal Mode - All notes ON - SA, PA and higher SA
2. Fine tuning mode - Only SA on (described above)
3. SA and Higher SA
4. SA, MA and Higher SA

New ASDM technology: Automatic Save, Dual Memory system is installed in the latest model of the Dhruva CD Excel. This means that when the instrument is switched on, whichever pitch is selected will be automatically saved in memory 10 seconds after the last key-press. If the pitch is changed and the instrument remains on, then after another 10 seconds this new pitch will get saved automatically in memory. Every time the instrument is switched on, the automatically saved pitch will be recalled. In addition, the user can save any pitch of his/her choice and save it separately in memory and pressing ▲ key while keeping the MEM key pressed. This pitch can be recalled at any time by pressing ▼ key while keeping the MEM key pressed.Thus 2 sets of memories are available in the Dhruva CD Excel III.

The display would become dim when either the AC voltage or the battery voltage is very low. The display therefore serves as a battery condition indicator. **The LED lamp in the front of the instrument glows only when AC mains power is received.**

AUTOMATIC MODEL

This model produces 4 notes automatically tuned to the Shadja, Panchama, Tara sthayi shadja and Mandara sthayi shadja.

A built-in pitch-pipe with digital display of pitch is provided.

Turn the knob marked SA to the desired pitch. The pitch is shown on the digital display. Standard pitch settings of C, C# (shown as C●) etc are displayed. When the pitch reaches the exact standard pitch, **both LED lamps near the display will light up equally.** When the pitch is slightly lower or higher than the standard pitch, the lower or upper lamp will be lit up or be brighter.
Press the button to change PA to MA to OFF.

WARRANTY

The Dhruva is guaranteed against manufacturing defects for a period of one year from the date of sale. The warranty is valid only if the seal on the rear of the instrument is intact.

CAUTION

Failure of solid-state components are extremely unlikely. The Dhruva is therefore a very rugged and reliable instrument. It is advisable to contact the manufacturer in case of any problems. Servicing by untrained technicians may cause permanent damage to the sensitive components. No periodic servicing is necessary. However, it is advisable to check the condition of the battery once in every 15 days, to prevent leakage.

In case of any problems, contact
Radel Electronics Pvt.Ltd.,
74/D, Electronics City, Hosur Road,
Bangalore 561229.
Tel;(91)-80-8520730,Fax:(91)-80-8521071.
e-mail:radel@vsnl.com.

WARRANTY REGISTRATION

(To be returned to M/s. Radel Electronics Pvt. Ltd., B'lore within 15 days of sale)

Name of Purchaser : ....

Address : ....

....

....

Type of Instrument : .... Model : ....

Date of Purchase : .... Sl. No. : ....

Dealer's Name with Seal